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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,976	01/29/2004	Brian T. Denton	BUR920030195US1	1975
29154	7590	01/13/2006	EXAMINER	
FREDERICK W. GIBB, III GIBB INTELLECTUAL PROPERTY LAW FIRM, LLC 2568-A RIVA ROAD SUITE 304 ANNAPOLIS, MD 21401			GARLAND, STEVEN R	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/707,976		DENTON ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Steven R. Garland		2125	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/29/04, 2/20/04, 10/26/04.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/29/04, 2/20/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The disclosure is objected to because of the following informalities: the status of the various applications mentioned on page 1 should be updated and the docket numbers should be deleted.

Appropriate correction is required.

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Examples are given below.

Claim 1 A method of allocating production starts in a manufacturing facility using a production planning system, said method comprising: performing a first stage of production planning to satisfy only contractually mandated minimum production starts constraints; and performing a second stage of production planning to satisfy additional constraints.

Claim 1 is directed to an abstract nonstatutory method idea in which no tangible steps are used or tangible results are produced. The claim does not positively require either the use of a computerized production planning system or performing actual physical allocation of production starts in a manufacturing facility only preliminary stages of planning are recited.

Claim 33 A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method of allocating production starts in a manufacturing facility using a linear programming production planning system, said method comprising: performing a first stage of linear programming to satisfy only contractually mandated minimum production starts constraints; and performing a second stage of linear programming to satisfy additional constraints.

Claim 33 is directed to a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method, the method comprising performing linear programming. The claim however is not directed to a particular practical application of a mathematical expression that transforms an article or physical object to a different state or thing or produces a useful, concrete, and tangible result. The claim is instead directed to a nonstatutory mathematical linear programming algorithm on a storage device in which upon execution only a mathematical method is performed.

Similar comments apply to the other claims.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-22, and 29-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. 6,731,999.

Yang et al. 6,731,999 discloses linear programming ( abstract, col. 3, lines 1-62); receiving customer orders; use of constraints ( col. 3, lines 1-62 and col. 4, lines 33-50); and performing stage planning of the starts. Yang also teaches the use of part numbers for tracking (location ) and time periods (col. 4, lines 1-4). See the abstract ; figures ; col. 1, line 66 to col. 2, line 12; col. 2, lines 44-46; col. 4, lines 1-50; and the claims.

Yang however does not expressly state that the orders are contracts or that the method is recorded on a medium.

It would have been obvious to one of ordinary skill in the art to modify Yang to require that orders be in a verbal contract or tangible contract form so as to insure that payment is made for the produced goods.

The X-ratio (rule 1 ) and/or special customer preferences serve as contractually mandated minimum production starts ( these determine the minimum starts in a first stage) then if additional capacity is available the special customer preferences and/or

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upper bound LP formula (second stage) is used to select the remaining lots ( customers that do not have mandated starts). When the first stage is performed the upper bound (stability) constraint is disabled along with second lower bound constraint and when the second stage is performed they are enabled. These steps insure that the minimum production requirements are met at the manufacturing site (location) at which the X ratio is being used.

Further one of ordinary skill in the art after entering into a contract would routinely identify violations of the contract, since the purpose of the contract is to insure that the parties of the contract fulfill the terms of the contract. Further if the production plan indicates that all the capacity is used it at the present time it would have been obvious to one of ordinary skill in the art to only negotiation a contract for production at a later period of time to avoid breach of contract or having a dissatisfied customer.

Further it would have been obvious to one of ordinary skill in the art to implement the method of Yang on a computer for ease in performing the control and linear programming and store the programming on a computer medium for later use or to have a backup copy in case of system failure.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examples are given below.

In claim 1 it is uncertain what stages are actually performed. It appears that if there is no contract that the first stage is not even required to be performed and/or if there are no contractually mandated minimum production starts constraints the first stage is not required either. The claim does not appear to positively recite that there are any contracts.

In claim 3 it is uncertain as to what is met by stability constraints or how are these different from any generic constraints? What is the stability related to? Similar comments apply to the constraints of claim 4.

In claim 5 it is uncertain as to metes and bounds of the term "considers" i.e. are the part numbers being used or is something else being claimed?

In claim 6 it is unclear how the first stage can ensure that the second stage meets the constraints i.e. are the results from the first stage being used or is something else being performed?

In claim 9 it is uncertain what the phrase "improves computerized line" means.

The other claims have problems similar to the various examples given above.

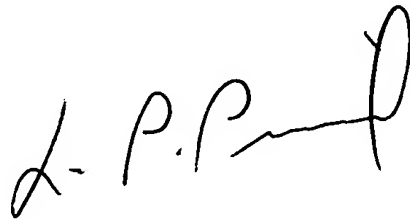
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bermon et al. 6,341,240 and Wu et al. 2004/0186605 are of interest in the used of minimums. Denton et al. 2005/0096771 is of interest in linear programming and relaxing constraints.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven R. Garland whose telephone number is 571-272-3741. The examiner can normally be reached on Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



*SRG*  
Steven R Garland  
Examiner  
Art Unit 2125

**LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100**